

# Notice of Allowability

Application No.

10/583,448

Examiner

Chester T. Barry

Applicant(s)

VIGNOLA ET AL.

Art Unit

1724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 9/17/07.
2. ☒ The allowed claim(s) is/are 1-19.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

Chester T. Barry  
571-272-1152 direct  
Art Unit: 1724

9/26/07

Art Unit: 1797

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in an e-mail interview with Justine Wilbur on October 3 – 9, 2007.

The application has been amended as follows:

IN THE SPECIFICATION

The following passages were inserted at page 7 between lines 19 and 20:

Art Unit: 1797

-- BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWINGS

Fig. 1 represents the adsorption isotherms of benzene on two types of zeolite: ZSM-5 and Y zeolite.

Fig. 2 shows the results of treatment of 1,2-dichloro-ethane with ZSM-5.

Fig. 3 illustrates a system consisting of a column whose first 20 cm are occupied by Y Zeolite and the rest by ZSM-5.

Fig. 4 shows the simulation apparatus used for the treatment of actual water contaminated by chlorinated alkanes and alkenes with the system Y Zeolite / ZSM-5 in succession.

Fig. 5 – 6 show the gas chromatograms of the head space obtained by analyzing the feeding and outflow of the PRB simulation apparatus operating in a laboratory, containing a combination of Y Zeolite/ZSM-5.

Fig. 7 shows the gas chromatographic profile of the water removed from the water-layer of the treatment of real water contaminated by high concentrations of aromatic hydrocarbons with the system Y Zeolite/ZSM-5 in succession.

Fig. 8 shows the scheme of the treatment of real water contaminated by high concentrations of aromatic hydrocarbons with the system Y Zeolite/ZSM-5 in succession.

Fig. 9 – 10 indicate the results of tests using the scheme depicted in Fig. 8.

Fig. 11 shows test results of treatment of actual water contaminated by high concentrations of oxygenated hydrocarbons, i.e., MTBE, and aromatic products, i.e., BTEX, with the system in succession consisting of Y zeolite followed by ZSM-5 / mordenite.

Fig. 12 – 13 show test results of synthetic water containing TPH with toluene and MTBE treated with a system consisting of a column of Y zeolite followed by two columns of mordenite / ZSM-5 and ZSM-5 / mordenite.

Fig. 14 – 17 show the results at the outlet of each column of Example 15.

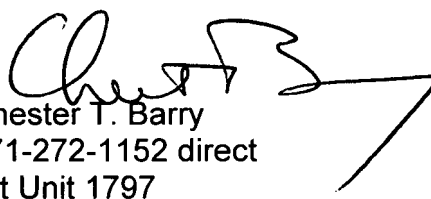
DETAILED DESCRIPTION OF THE INVENTION

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chester T. Barry whose telephone number is 571-272-1152. The examiner can normally be reached on M - F 9 - 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571.272.1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
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Art Unit 1797